

Jet Propulsion Laboratory  
12th Annual High-Tech Small Business Conference



# **BUSINESS DEVELOPMENT STRATEGIES WITH LARGE ORGANIZATIONS**

**March 6, 2000**

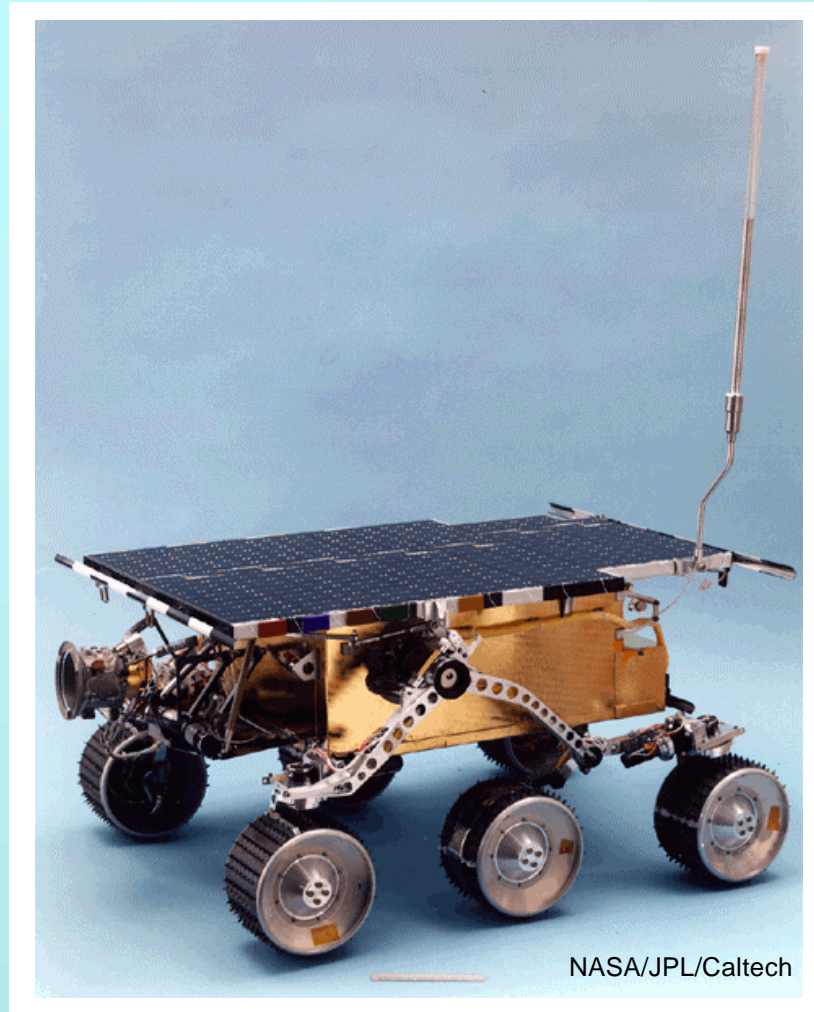
**Mel N. Roberts**  
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# KNOW THE ORGANIZATION



JPL performs robotic exploration of the solar system to discover the origins of life

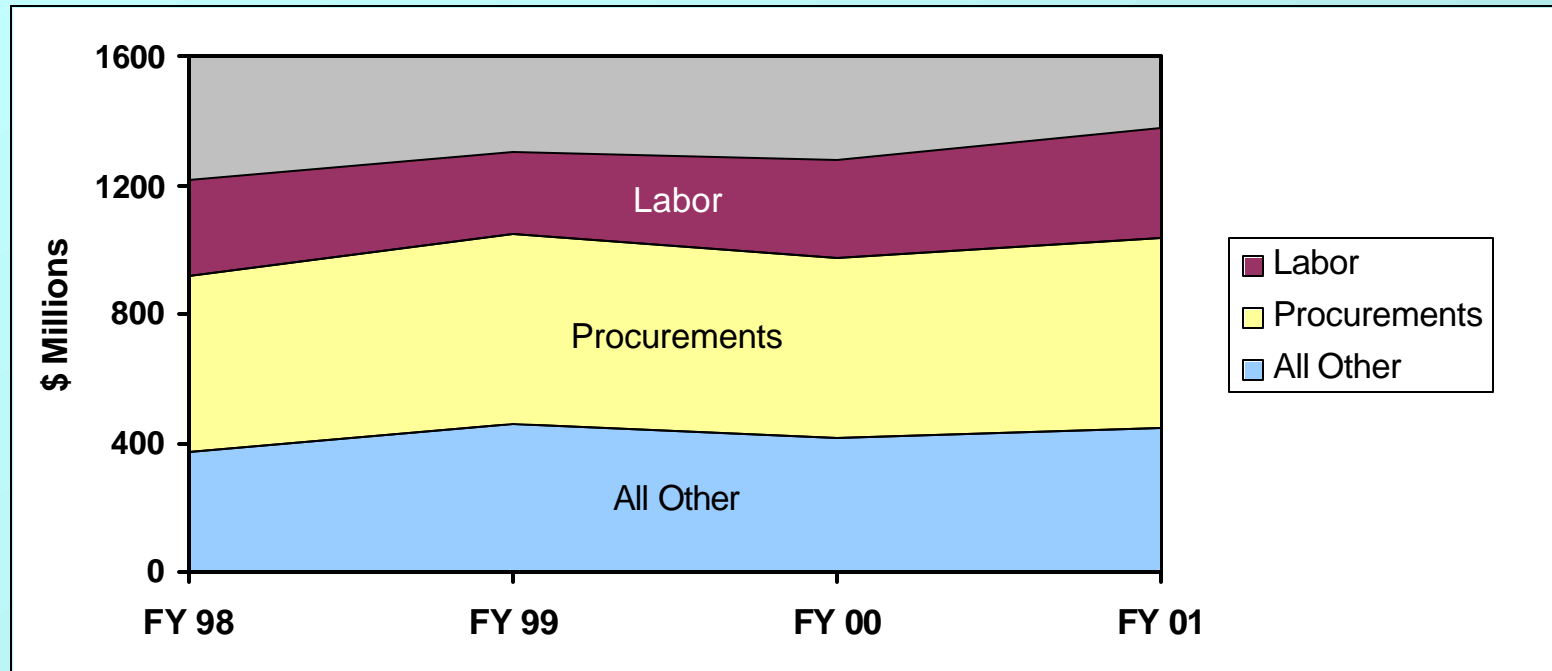


# ACQUISITION OPERATIONS AND PLANNING OFFICE

- Contract Technical Manager, Technical Support Efforts Personnel Contracts (TSEPs) (\$1,000,000/week, Small Business)
- Liaison/Representation: Technical Divisions, Program/Project Directorates to Acquisition Division
- Small and Large Business Supplier Relationships - matching JPL-to-industry, industry-to-JPL
- Facilitate JPL's achievement toward socioeconomic goals
- Acquisition processes, planning, strategy
- Chair for the Strategic Technical Contracts Working Group
- Chair for the George M. Low Award



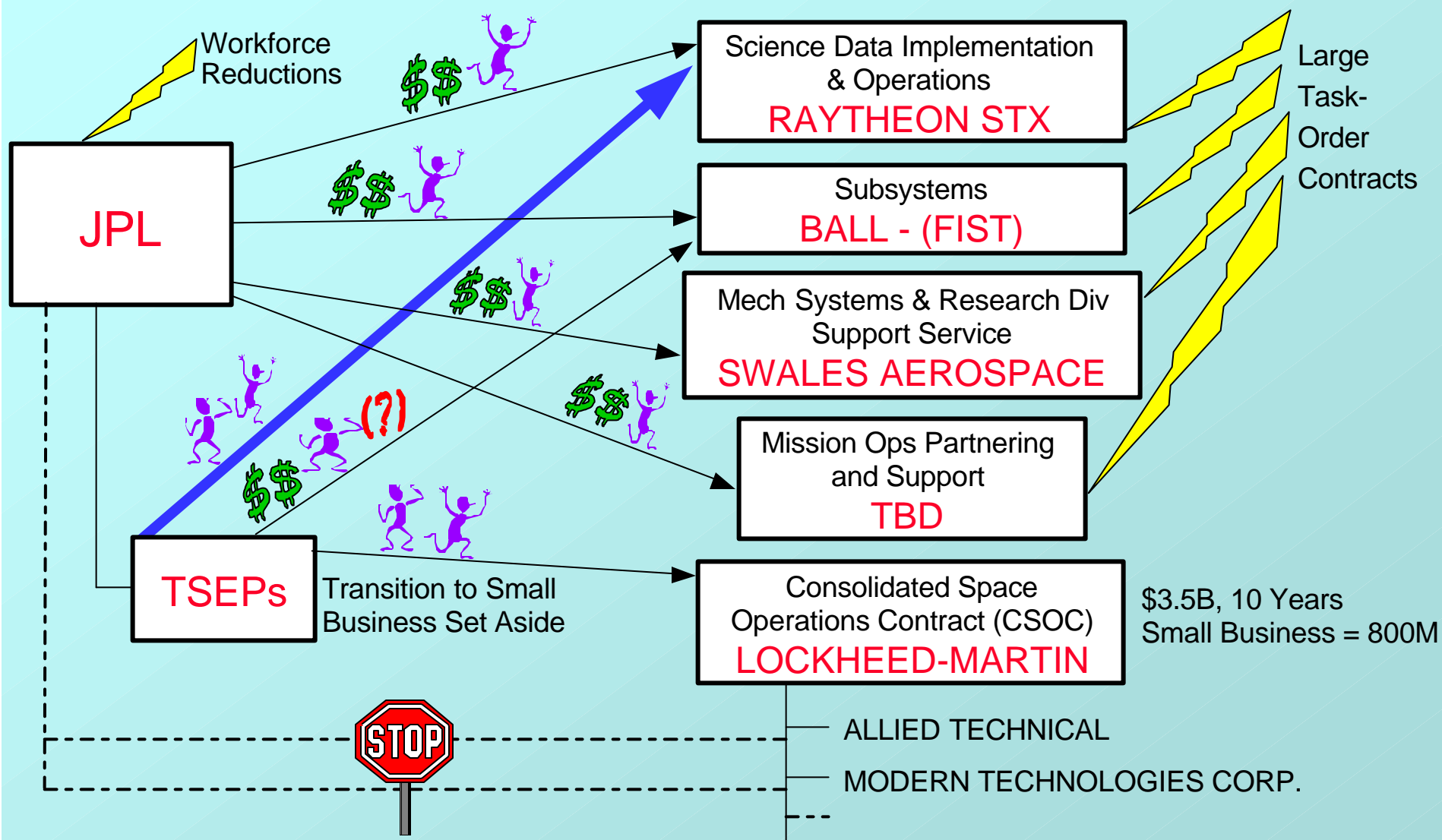
## JPL BUDGET BY FISCAL YEAR



JPL's Budget shows little "real" growth in times of declining workforce and increasing procurements



# CONTRACT ENVIRONMENT CHANGES INFLUENCE MARKET STRATEGY



TRANSITIONS IN THE CONTRACT ENVIRONMENT  
AFFECT MARKETING STRATEGIES FOR SMALL BUSINESS

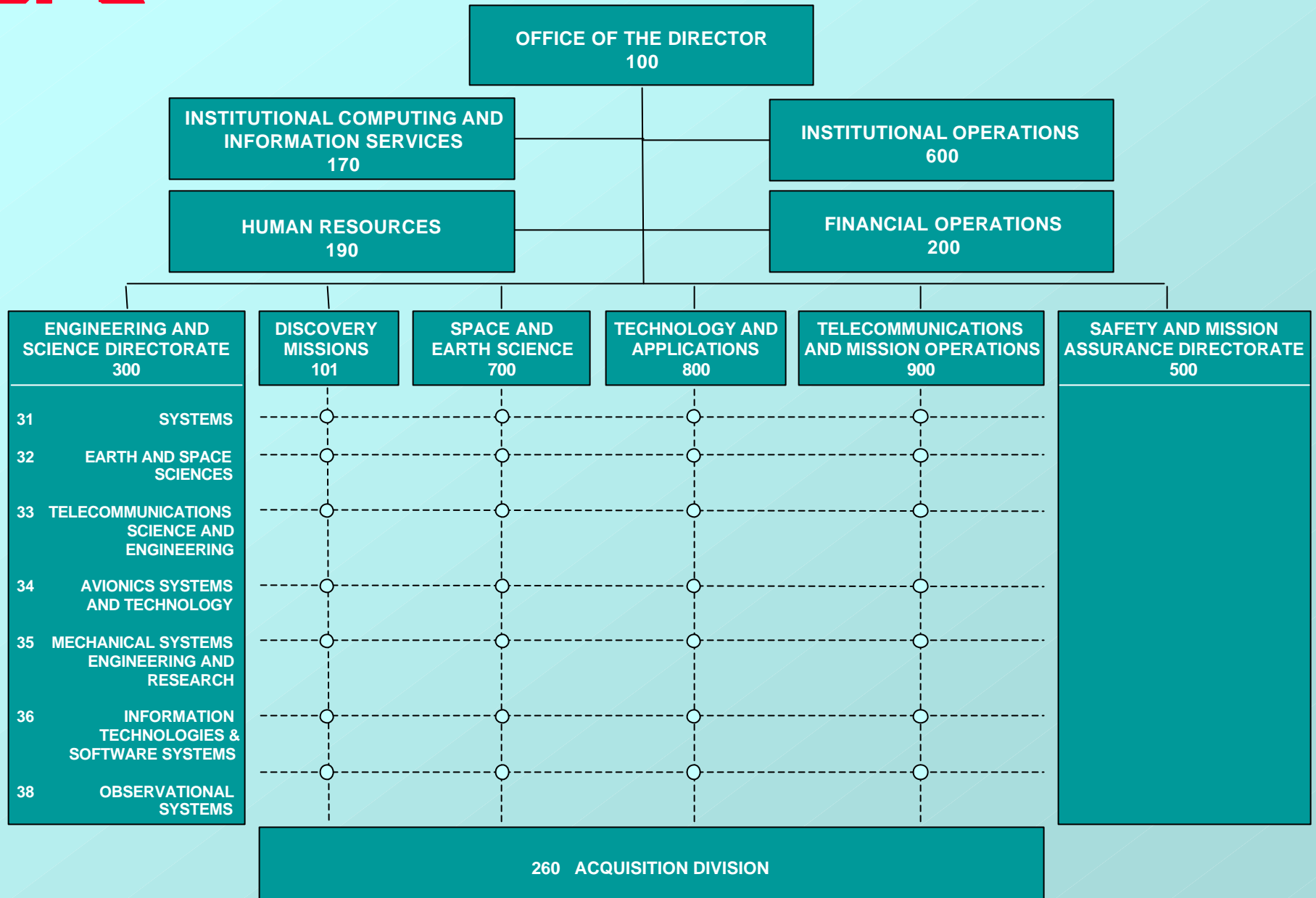


## JPL'S SMALL BUSINESS GOALS

TOTAL SUBCONTRACTS	FY'99 \$673.3M	FY'00 (GOALS) \$650M (100%)
Large Business Awards	\$441.6M (66%)	\$442M (68%)
Small Business Awards	\$231.7M (34.4%)	\$208M (32%)
Small Disadvantaged Business (SDB) Awards	\$118M (17.5%)	\$110.5 (17%)
Woman-Owned Business Awards	\$25.2M (3.7%)	\$22.75M (3.5%)



# JPL MATRIX ORGANIZATION







# ENGINEERING AND SCIENCE DIRECTORATE

## ENGINEERING AND SCIENCE DIRECTORATE (300)

### SYSTEMS (31)

- MISSION DESIGN
- NAVIGATION
- SYSTEMS ANALYSIS AND ENGINEERING
- SPACECRAFT SYSTEMS DESIGN
- MISSION OPERATIONS SYSTEMS DESIGN
- END-TO-END INFORMATION SYSTEMS DESIGN
- OPERATIONS RESEARCH
- ECONOMICS

### TELECOMMUNICATIONS SCIENCE AND ENGINEERING (33)

- TELECOMMUNICATIONS SYSTEMS ENGINEERING
- COMMUNICATION THEORY
- MICROWAVE REMOTE SENSING
- RF & OPTICAL TRANSMITTERS AND RECEIVERS
- ANTENNAS
- ELECTROMAGNETIC WAVE THEORY
- RADIO ASTRONOMY, GPS, GEODYNAMICS AND METRIC TRACKING RESEARCH

### MECHANICAL SYSTEMS ENGINEERING & RESEARCH (35)

- MECHANICAL SYSTEMS
- STRUCTURES AND MECHANISMS
- DYNAMICS ANALYSIS
- MATERIALS
- ENVIRONMENTAL TESTS
- THERMAL AND FLUID SYSTEMS
- DESIGN DRAFTING AND COMPUTER AIDED DESIGN (CAD)
- PROPULSION AND PYROTECHNICS
- BIOTECHNOLOGY
- CHEMISTRY CATALYSIS AND CHEMICAL SYSTEMS
- COMBUSTION
- HEAT TRANSFER
- MICROGRAVITY SCIENCES

### INFORMATION TECHNOLOGIES AND SOFTWARE SYSTEMS (36)

- MISSION INFORMATION AND SOFTWARE SYSTEMS ENGINEERING
- AUTONOMY AND ARTIFICIAL INTELLIGENCE
- DATA MINING, TRANSPORT AND MANAGEMENT
- MISSION OPERATIONS ENGINEERING AND SERVICES
- INTELLIGENT SYNTHESIS ENVIRONMENT
- SIMULATION, COMMAND AND CONTROL SYSTEMS
- INFRASTRUCTURE COMPUTING AND NETWORKING
- COMPUTER GRAPHICS AND VISUALIZATION
- SUPERCOMPUTING AND QUANTUM COMPUTING

### EARTH AND SPACE SCIENCES (32)

- REMOTE SENSING & IN-SITU FLIGHT EXPERIMENTS
- LABORATORY CHEMISTRY & PHYSICS
- PLANETARY ASTRONOMY
- ASTROBIOLOGY
- ASTROPHYSICS/ORIGINS
- EARTH AND PLANETARY ATMOSPHERES
- EARTH AND PLANETARY GEOSCIENCE
- OCEANOGRAPHY
- ASTEROIDS, COMETS & SATELLITES
- SPACE PHYSICS

### AVIONIC SYSTEMS & TECHNOLOGY (34)

- GUIDANCE AND CONTROL
- INTEGRATED SPACE MICROAVIONIC SYSTEMS
- ENGINEERING SENSORS, ACTUATORS CONTROL PRECISION METROLOGY
- POWER SYSTEMS
- ROVERS, ROBOTICS, MACHINE VISION
- SCIENCE SENSORS, MICROELECTROMECHANICAL, AND MICROINSTRUMENTS
- NEURAL NETWORKS, FUZZY LOGIC, AND ALGORITHMS
- PHOTONICS, ELECTRO-OPTICS, AND OPTICAL PROCESSING
- SYSTEMS AUTONOMY
- MISSION OPERATION SUPPORT

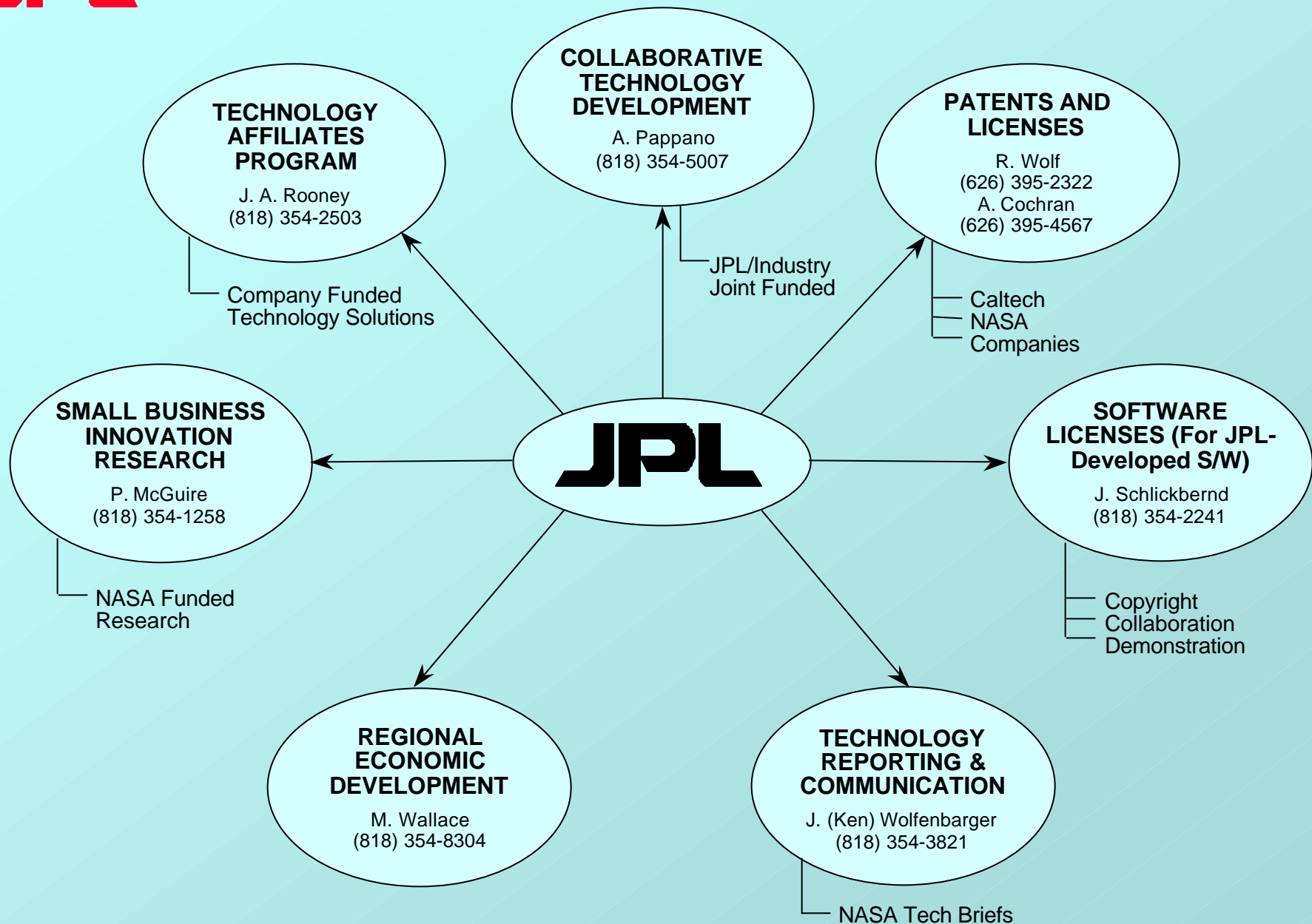
### OBSERVATIONAL SYSTEMS (38)

- VIS/IR IMAGING/SPECTROMETRY SYSTEMS
- MICROWAVE/SUBMILLIMETER SYSTEMS
- OPTICAL/SUBMMW INTERFEROMETRY
- INSITU INSTRUMENTS & TECHNOLOGY
- ADVANCED VISIBAL/IR/SUBMILLIMETER DETECTOR/ SENSOR TECHNOLOGIES
- ADVANCED OPTICS TECHNOLOGY
- MISSION/INSTRUMENT/OPTICAL MODELING & SIMULATION
- SCIENCE/SYSTEM DATA ANALYSIS AND VISUALIZATION TECHNOLOGY
- PLANETARY DATA SYSTEMS
- DATA BASE MANAGEMENT TECHNOLOGY





# WAYS TO ACCESS JPL TECHNOLOGY





# HOW TO ESTABLISH RELATIONSHIPS

- Competitive contracts (over threshold - \$10,000 at JPL)
  - Proposal in response to open competition
    - May bid as a prime
  - Proposal in response to a small-business set aside
    - Any small business may compete
  - Team/Proposal with
    - Another company (large or small) as a subcontractor
    - A NASA Center to bid an Announcement of Opportunity

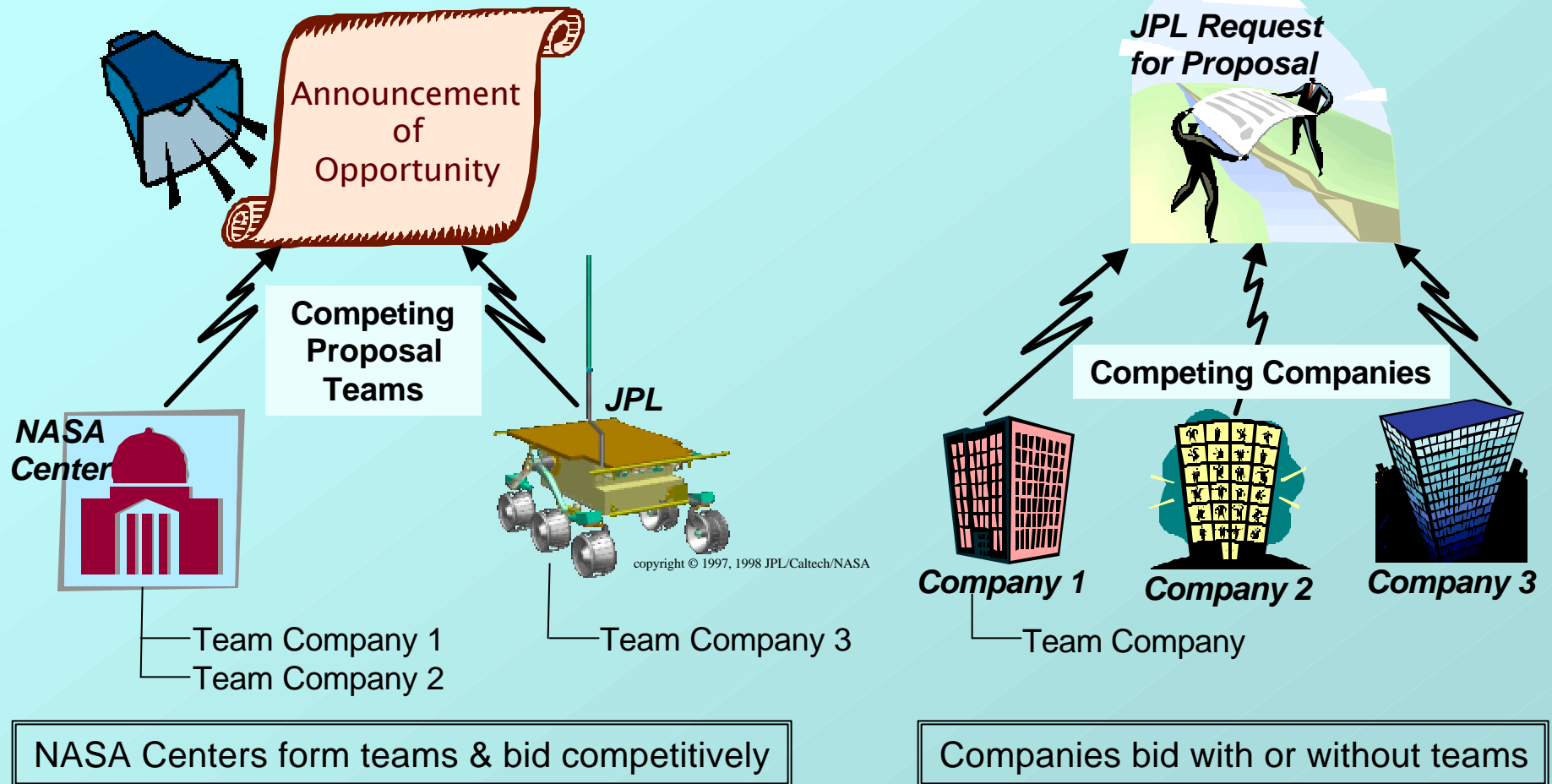


Small businesses may engage with or without teams to submit proposals in competition



# HOW TO ESTABLISH RELATIONSHIPS (Cont'd)

## TEAMING COMBINES COMPETITIVE AND NON-COMPETITIVE RELATIONSHIPS

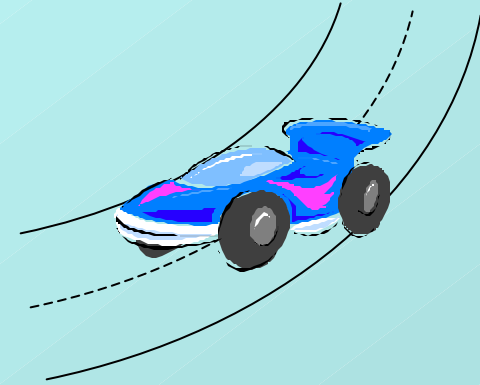


Recommendation: In team environments, execute a written agreement and understand commitments



# HOW TO ESTABLISH RELATIONSHIPS (Cont'd)

- Non-competitive contracts
  - Non-competitive source selection
    - High value (over \$10,000 at JPL)
      - Unique and compelling rationale
    - Low value (under \$10,000 at JPL)
      - No need to justify at small values
  - Mentor-Protégé
    - Selection criteria conforms to NASA Requirements
      - And company status as: SDB, or WOB, or HCBU
  - The above still require proposals, negotiations, and contract executions

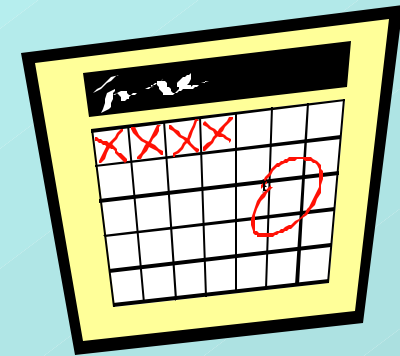


**Contracts may execute without competition**



# KNOW THE PROSPECTIVE CUSTOMER

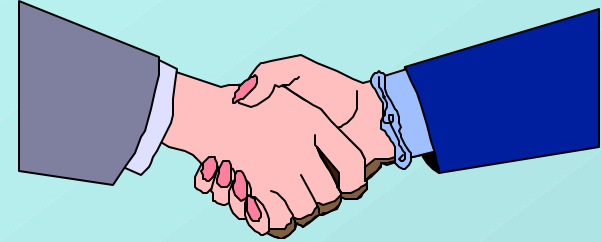
- Calendar Cycle of Operation
  - Where/How the organization does business
  - Cyclical meetings/conferences
    - Small Business
    - Industry Day
    - Bidder's conferences
    - Support to other Centers and conferences
  - Identify the nature of the business of the organization
    - Learn the culture of the organization





## KNOW THE PROSPECTIVE CUSTOMER (Cont'd)

- Participate in industry interactions
  - Inquiries on forecasts
  - Capability briefings
  - Technical interchanges on mutual technological interests
  - Tech expos, high-tech conferences
  - Ask about recompetition of support contracts
- Early involvement in the development of requirements
  - Discussions with Contract Technical Managers and Cognizant Engineers

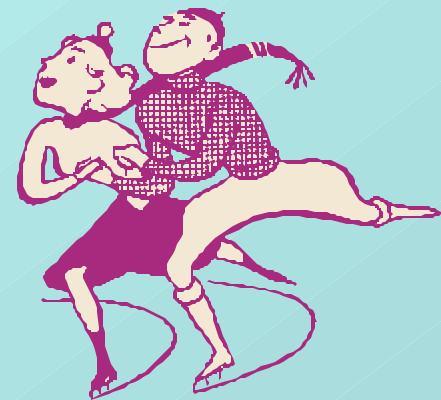


People buy from people



# HOW TO CAPTURE JPL'S BUSINESS

- Marketing approach
  - Communicate and gain familiarity with the relevant areas
    - Acquisition Operations and Planning Office
    - Business Opportunities Office
    - Contract Technical Managers
    - Contract Negotiators
    - Technical Divisions
    - Program and Project Directorates
    - Learn about Support Contracts
- Build rapport







# SUPPORT CONTRACT SELECTION/RECOMPETITION ISSUES

- Available options to extend the contract
- Competitive vs non-competitive source justification
- Recompete the effort
  - requirement changes
  - small business set aside or open competition
- Relationship of this work to other contracts
  - interference
  - overlap
  - scope
- Strategic issues



# SUPPORT CONTRACT BASELINE AND FUTURE PLANS/EXPECTATIONS

## CONTRACT

## EXPIRES

## \$ VALUE

- Deep Space Network specialized engineering support
  - Modern Technologies Corporation
  - Future: unknown
- Science Data Implementation & Operations
  - Raytheon STX
  - Multiple extension options

09/00

31M

09/03

55M



## SUPPORT CONTRACT BASELINE AND FUTURE PLANS/EXPECTATIONS (Cont'd)

<u>CONTRACT</u>	<u>EXPIRES</u>	<u>\$ VALUE</u>
<ul style="list-style-type: none"><li>• Flight Systems and Instrument Tasks (FIST)<ul style="list-style-type: none"><li>– Ball - Boulder, CO</li><li>– Multiple extension options (14 years)</li></ul></li></ul>	09/03	120M
<ul style="list-style-type: none"><li>• Mission Operations Partnering and Support (MOPS)<ul style="list-style-type: none"><li>– RFP Date: (?)</li><li>– Multiple extension options</li></ul></li></ul>		25M/year
<ul style="list-style-type: none"><li>• Mission and Computing Support Services (MACS) for Div 36<ul style="list-style-type: none"><li>– OAO Corporation</li><li>– Plan: Extend to 04/01</li><li>– Future: May end earlier than 04/01</li></ul></li></ul>	04/00	300M



## SUPPORT CONTRACT BASELINE AND FUTURE PLANS/EXPECTATIONS (Cont'd)

<u>CONTRACT</u>	<u>EXPIRES</u>	<u>\$ VALUE</u>
<ul style="list-style-type: none"><li>• Instrument Repair Calibration Loan Pool<ul style="list-style-type: none"><li>– SAMCO (RCM Technologies, Inc.)</li><li>– Plan: extend to 12/01</li><li>– Future: unknown</li></ul></li></ul>	12/00	20M
<ul style="list-style-type: none"><li>• Mechanical/Thermal Design Development Support<ul style="list-style-type: none"><li>– Swales Aerospace</li><li>– Plan: recompet, RFP 8/00</li></ul></li></ul>	09/01	34M



## SUPPORT CONTRACT BASELINE AND FUTURE PLANS/EXPECTATIONS (Cont'd)

<u>CONTRACT</u>	<u>EXPIRES</u>	<u>\$ VALUE</u>
<ul style="list-style-type: none"><li>• TAP Hardware and Software Related Tasks<ul style="list-style-type: none"><li>– Federal Data Corporation</li><li>– Option: 5-year extension</li></ul></li></ul>	09/03	20M
<ul style="list-style-type: none"><li>• Thermal Design and Engineering Support<ul style="list-style-type: none"><li>– Applied Science Laboratory</li><li>– Plan: recompet: RFP 11/00</li></ul></li></ul>	11/01	7.5M



## SUPPORT CONTRACT BASELINE AND FUTURE PLANS/EXPECTATIONS (Cont'd)

<u>CONTRACT</u>	<u>EXPIRES</u>	<u>\$ VALUE</u>
<ul style="list-style-type: none"><li>• Reliability Engineering Support Service<ul style="list-style-type: none"><li>– EER Systems, Inc.</li><li>– Plan: up to 4 1-year options</li></ul></li></ul>	09/00	2M
<ul style="list-style-type: none"><li>• Composite Structure Design and Fabrication Engineering<ul style="list-style-type: none"><li>– Composite Optics, Inc.</li><li>– Plan: recompet: RFP 9/00</li></ul></li></ul>	09/01	8M



# ESTABLISH RELATIONSHIPS TO FACILITATE MARKETING !

- Use contacts to:
  - Locate the relevant personnel
    - Technical side
    - Acquisition side
  - Find the source of opportunities
    - Lists, internet
    - Formulate concepts and requirements
    - Talk with the technical and procurement staff
    - See <http://pro-net.sba.gov/>
      - Enroll in this service!
- Learn to seize opportunities that arise
  - How to react when
    - The Technical Representative does not know his responsibility





# KEY TECHNOLOGY – INDUSTRY MARKETING SUMMARY

- Valuable resources
  - Business opportunities and Acquisition Operations and Planning Offices (JPL), Small Business Specialists (NASA Centers)
  - Websites
    - Acquisition, Business Opportunities Office
    - Engineering and Science Directorate
  - JPL phone book
    - Blue pages, yellow pages, white pages
  - New programs and projects, business forecasts
  - Personnel reassignments and organization charts
  - High-Tech Forums, Technology Expos
  - Technology contact lists

# COMMIT TO THE MARKETING PROCESS



Earning the new contracts requires a dedicated commitment



# METHOD OF APPROACH TO JPL AND THE PRIMES

- Business Opportunities Office
  - Manager and Administrative
    - Tom May, Manager (818) 354-2121
    - Margo Kuhn (818) 354-5722
    - Martin Ramirez (818) 354-6093
    - Mary Helen Ruiz (818) 354-7532
    - Arthur Duran (818) 354-7531
- Engineering and Science Directorate
  - Acquisition Operations and Planning
    - Mel N. Roberts (818) 354-1001
  - Information Technology and Software Systems Rep
    - Charles Beswick (818) 354-0967



## RELEVANT HOME PAGES

Jet Propulsion Laboratory

<http://www.jpl.nasa.gov>

Acquisition Division Home Page

<http://acquisition.jpl.nasa.gov/>

Engineering and Mission Assurance Office

<http://eis/oema/External/index.html>

Engineering and Science Directorate

<http://eis.jpl.nasa.gov/esd/>

JPL Business Opportunities Office

<http://acquisition.jpl.nasa.gov/boo/>

JPL Terms and Conditions

<http://acquisition.jpl.nasa.gov/e2000.htm>

Mars Exploration Technology Program

<http://Mars.jpl.nasa.gov>

Small Business Administration  
Procurement Marketing and Access  
Network

<http://pro-net.sba.gov>

Space and Earth Science  
Programs Directorate

<http://www.jpl.nasa.gov/sespd>

Technology and Applications Program

<http://mishkin.jpl.nasa.gov/TAP.html>

Telecommunications and Mission  
Operations Directorate

<http://deepspace.jpl.nasa.gov/900/public/>